UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,487	08/27/2003	Jonathan J. Oliver	PA3628US	6147

22830 7590 08/17/2007	EXAMINER
CARR & FERRELL LLP 2200 GENG ROAD PALO ALTO, CA 94303	NGUYEN, MINH DIEU T

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 July 2007</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,5-20 and 22-31</u> is/are pending in the application.

    4a) Of the above claim(s) <u>3,4 and 21</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2,5-20 and 22-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/25/07

has been entered.

2.   Claims 1-2, 5-20 and 22-31 are pending.

Response to Arguments

3.   Applicant's arguments filed 7/25/07 have been fully considered but they are not

persuasive. The Applicant argues that there is no indication in Chasin that the

errorneous classification probability is less than 1%. The Examiner respectfully

disagrees, according to Chasin, paragraph [0011], the confidence ratio used for

classifying a message as spam or junk can be increased to a relatively high value, e.g.

approaching 100%. It is obvious that when the confidence ratio approaches 100%, the

probability of erroneous classification is less than 1%. Furthermore, Chasin, paragraph

[0052], discloses the spam analysis involves using one or more spam classifiers and/or

statistical analysis techniques ... The content is scored and/or a confidence level is

typically determined for the content during the analysis. The spam determination may

include comparing the determined or calculated score and/or confidence level with a

user provided or otherwise made available minimum acceptable score or confidence

level above which the content is identified as spam or "bad". In other words, one can set

the confidence level at any level to a 90 or 95 percent or higher to limit the number of

false positives, as such Chasin does teach the errorneous classification probability is

less than 1%.

According to applicant's specification, page 6, lines 5-11, it is only illustrated the

argument of "less than 1%" as an example. However, such an example does not reflect

a positive evidence of "less than 1%".

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-2, 5-12, 14-19, 28 and 30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chasin (2005/0015626) in view of Andrews et al. (2003/0204569).

a)   As to claims 1, 28 and 30, Chasin discloses a method for improving a

statistical message classifier, comprising: testing a message with a machine classifier,

wherein the machine classifier is capable of making a classification on the message

(see Chasin: 0032) and the machine classifier is a reliable classifier having a probability

of erroneous classification of less than one percent (i.e. confidence ratio used for

classifying a message as spam or junk can be increased to a relatively high value, e.g.

approaching 100 percent, see Chasin: 0011); the statistical message classifier is

configured to detect an unsolicited message (see Chasin: 0032-0033) and comprises a

knowledge base that tracks the spam probability of features in classified message (i.e.

statistical classifiers determine and access the probability that a new e-mail message

with identified tokens is spam or not spam, see Chasin: 0037, 0045, 0049). However

Chasin is silent on the capability of having in the event the machine classifier makes the

classification, updating the statistical message classifier according to the classification

made by the machine classifier.

Andrews is relied on for the teaching of having in the event the machine classifier

makes the classification, updating the statistical message classifier according to the

classification made by the machine classifier (i.e. statistical message classifier uses

characteristic keywords and/or words associations to detect spam e-mails and these

information are saved in a special folder to be used as a training database to update

statistical classifier, see Andrews: 0040, 0048-0049 and 0069).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to employ the use of in the event the machine classifier makes the

classification, updating the statistical message classifier according to the classification

made by the machine classifier in the system of Chasin, as Andrews discloses, so as to

update the statistical classifiers for improving classifying and identifying spam (see

Chasin: 0034).

b)   As to claim 2, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the machine

classifier is further capable of making no classification on the message (i.e. to allow

unfiltered e-mails to pass to the e-mail server for later delivery to or picking up by the e-

mail recipient, see Chasin: 0031)

    c)   As to claim 5, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the machine

classifier includes a whitelist classifier (see Chasin: 0035).

    d)   As to claim 6, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the machine

classifier includes a collaborative fingerprinting classifier (see Chasin: 0037).

    e)   As to claim 7, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the machine

classifier includes an image analyzer (see Chasin: 0047).

    f)   As to claim 8, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the machine

classifier includes a probe account (i.e. honeypots uses dummy email addresses or fake

recipients to attract spam, see Chasin: 0037).

    g)   As to claim 9, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the machine

classifier includes a challenge-response classifier (see Chasin: 0037).

    h)   As to claim 10, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises updating a knowledge base used to train the

statistical message classifier (see Andrews: 0049).

i)   As to claim 11, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises updating a statistical model used by the

statistical message classifier (see Andrews: 0048-0049).

jl)   As to claim 12, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises parsing the message to obtain a feature (see

Chasin: 0037).

k)   As to claim 14, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises parsing the message to obtain a feature and

updating a training set (see Andrew: 0049).

l)   As to claim 15, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises parsing the message to obtain a feature and

computing a spam probability associated with the feature (see Chasin: 0037, 0049).

m)   As to claim 16, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein updating the

statistical message classifier comprises parsing the message to obtain a feature and

computing a score associated with the feature (see Chasin: 0036).

n)   As to claim 17, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the message is

a previously stored message (i.e. e-mails released from quarantine, see Chasin: 0031).

o)   As to claim 18, the combination of Chasin and Andrew discloses the

method for improving a message classifier as recited in claim 1, wherein the message is

an incoming message (see Chasin: 0031).

p)   As to claim 19, the combination of Chasin and Andrew discloses the

method for improving message classifier as recited in claim 1, in the event that the

message is not classifiable by the classifier, further comprising testing the message with

another machine classifier (i.e. filtered messages may be refused by the filter modules,

and other classifiers may be used as additional filters for identifying the messages, see

Chasin: 0032-0033).

6.   Claims 13, 20, 22-26, 29 and 31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chasin (2005/0015626) in view of Andrews et al. (2003/0204569)

and further in view of Bandini (2002/0199095).

a)   As to claims 20, 23-24, 29 and 31, the majority of claim limitations in these

claims are in claim 1 and addressed by Chasin and Andrews, however the combination

of Chasin and Andrews is silent on the capability of having in the event that the

message is not classifiable by the first classifier, testing the message with a second

classifier, wherein the second classifier is capable of making a second classification.

Bandini is relied on for the teaching of having in the event that the message is not

classifiable by the first classifier, testing the message with a second classifier, wherein

the second classifier is capable of making a second classification (i.e. the e-mail relay is

used to filter email, email with score below the borderline level is a clean indication,

those are not classified in the clean category are further tested for spam indication or

other indication, see Bandini: 0019, 0021); in the event that the message is classifiable

by the second classifier, updating the statistical message classifier according to the

second classification (the combination of Chasin and Andrew discloses updating the

statistical message classifier according to the first classification, see addressed above

claim 1, this same concept can be implemented to update the statistical message

classifier according to the second classification). It would have been obvious to one of

ordinary skill in the art at the time of the invention to employ the use of in the event that

the message is not classifiable by the first classifier, testing the message with a second

classifier, wherein the second classifier is capable of making a second classification in

the system of Chasin and Andrews, as Bandini teaches, so as to reduces the number of

SPAM messages users receive (see Bandini: 0003).

  b)   As to claim 13, the combination of Chasin, Andrews and Bandini discloses

the method for improving a message classifier as recited in claim 1, wherein updating

the statistical message classifier comprises parsing the message to obtain a feature and

updating a counter corresponding to the feature (see Bandini: 0039).

  c)   As to claims 22 and 25-26, the combination of Chasin, Andrew and

Bandini discloses the method for improving message classifier as recited in claim 20,

wherein the second classifier is a reliable, reliable good classifier, reliable junk classifier

having a probability of erroneous classification of less than one percent (i.e. confidence

ratio used for classifying a message as spam or junk can be increased to a relatively

high value, e.g. approaching 100 percent, see Chasin; paragraph 0011).

7.   Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chasin

(2005/0015626) in view of Andrews et al. (2003/0204569) in view of Bandini et al.

(2002/0199095) and further in view of Horvitz et al. (6,161,130).

The combination of Chasin, Andrews and Bandini discloses the method of claim

20, however it is silent on the capability of having the first classifier is a user-augmented

classifier. Horvitz is relied on for the teaching of the first classifier is a user-augmented

(Horvitz: col. 9, lines 9-17). It would have been obvious to one of ordinary skill in the art

at the time of the invention to employ the use of the first classifier is a user-augmented

in the system of Chasin, Andrews and Bandini, as Horvitz teaches, so as to allow user
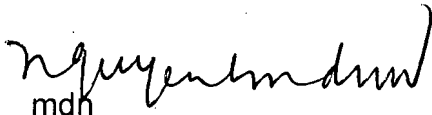
making ultimate decision.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Minh Dieu Nguyen whose telephone number is 571-272-

3873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number

for the organization where this application or proceeding is assigned is (571) 273-8300.

9.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

mdh
8/16/07